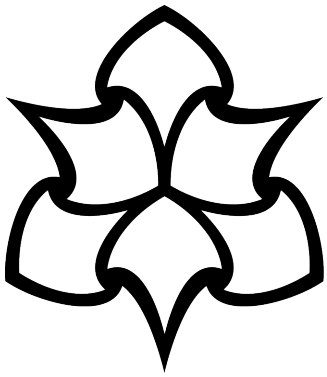

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Learning to fail and learning from failure – ideology at work in a mathematics classroom

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When actualised in a concrete school, the official discourse of inclusion and equity often encounters a series of obstacles that research strives to identify and address under the imperative to eliminate them. Through the exploration of classroom episodes, teacher interviews and field notes from a German secondary school, we take failure not as a correctable obstacle but as a symptom of the ideology at work in current educational practices. Symptoms, as Žižek (after Lacan) suggested, cannot be eliminated but always (re)emerge since they concern the impossibility of official discourses actualising themselves. We thus argue for a research agenda that learns from failure instead of research concerned with the possible successes that might prospectively be brought into existence, if just the 'right' theory was applied 'correctly'.

Keywords: failure; choice; ideology; symptom; Žižek; Lacan; mathematics education

Introduction

International organisations (e.g. Organisation for Economic Co-operation and Development (OECD)), professional institutions (e.g. National Council of Teachers of Mathematics 2000) and researchers (see Atweh et al. 2011; Gellert, Jablonka, and Morgan 2010; Herbel-Eisenmann et al. 2012) posit mathematics education as a key element in the development of a socially just and equitable society. It is assumed that a quality mathematics education will allow people to become active participants in a world where mathematics informs and formats many of the decisions that influence our lives (Gellert and Jablonka 2007; Skovsmose 1994). As a result, the main task of mathematics education research has been the development of teaching and learning strategies that can provide a meaningful mathematics for all. Researchers typically see persistent failure in school mathematics as

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Pedagogy, Culture & Society, 2014
Vol. 22, No. 1, 79–96, http://dx.doi.org/10.1080/14681366.2013.877207

an occurrence contingent on a system that officially aims at equity and freedom (Baldino and Cabral 2006; Pais 2012; Pais and Valero 2012). As such, researchers are often interested in describing successful experiences, showing how learning obstacles can be overcome, instead of analysing episodes of failure (Gutiérrez 2010; Presmeg and Radford 2008; Sriraman and English 2010).

This propensity to report successful experiences partakes in an ideology that Lacan (2008) characterised as evolutionism: the belief in a supreme good, in a final goal of progress that guides its course from the very beginning. In the case of mathematics education, the supreme goal is 'mathematics for all', and research has focused on eliminating the obstacles

standing in the way of this goal (Lundin 2012; Pais and Valero 2012). The goal itself is seldom questioned – notwithstanding the evidence that mathematics is not for all – and the discourse of equity ends up functioning as a regulative ideal rather than an empirically realisable event (Davis 2004). Research is then moved by a desire for what ought-to-be in opposition to what is (46), thus failing to recognise the concrete conditions of today's schooling. From this perspective, as explored elsewhere (Pais and Valero 2012), the problems encountered by teachers are not didactical in the sense of better ways to teach and learn mathematics, but political, regarding the economic and socio-political implications of schooling. This is especially true at a time when the official rhetoric of the curriculum – which emphasises the high goals of equity and global access – contrasts with the economic demands on education (competition, employability, pressure to succeed in global assessment, etc.). Indeed, insofar as mathematics education research has to address the problems of practitioners, it cannot afford to dismiss the real conditions of their work.

Against this background, we present a study of educational failure. We set our investigation in a secondary school that can be thought of as marginalised or underprivileged, and analyse two classroom episodes that led to students' exclusion from learning mathematics. If we followed the evolutionistic thesis, we would be expected to formulate strategies to overcome the problems that led to students' failure. These could be formulated in terms of teacher education (e.g. a different way of interacting with the students), the curriculum (e.g. more challenging tasks) or classroom organisation (e.g. project or group work instead of blackboard-centred and individual work). However, we will instead analyse the classroom episodes as they are since our interest is not in providing solutions for the problems of practice, but in pinpointing the ideological injunctions at work in the way teachers and students interact in the classroom. By analysing things as they are (instead of how they 'should' be), we seek to make visible the incongruence between the official discourse and the lived experiences of students and teachers.

We focus our analysis on the way students 'decide' to participate (or not) in the activities proposed by their teachers. We argue that the ideological frame is set in such a way that failure cannot be attributed to anything other than individuals making the wrong choices. However, as we shall see, these are false choices, since they lack a crucial precondition of choice: the freedom to choose. On the side of the student, we will show that, whether or not they 'choose' to participate in classroom activities, the outcome will be failure in school mathematics. On the side of the teacher, we will reveal the fallacy of the belief that she could have transformed failure into success by making choices that were more aligned to the regulative ideal of school mathematics. The analysis of the cases we present leads us to conclude that the production of failure is a structural problem, escaping the realm of an evolutionist mathematics education.

The necessity of failure and the ideology of research

As a point of departure for our analysis we claim that failure is an integral part of the economy of schooling (Bowles and Gintis 1977; Baldino and Cabral 2006; Lave and McDermott 2002; Pais 2012). We conceptualise schools as a credit system, which school mathematics is a part of (Vinner 1997) and which operates through selection and accreditation. Mathematics

is thus posited as an economically valuable resource under the condition of scarceness. In order to load such economic value, an accreditation of mathematical competence requires a momentum of distinction. The value of the ones who fail is appropriated by the ones who pass as surplus-value. As failure is inherent in the logic of the credit system, it appears no longer as a contingent phenomenon, but can be posited as a necessary condition for schooling: 'in order to perpetuate the process of production/seizure of surplus value, a certain amount of failure is necessary' (Baldino 1998, 77). Therefore, 'failure of students means success of the institution' (Baldino and Cabral 2006, 34).

To acknowledge that failure is a necessity of current schooling is not easy for those who work in it. To be able to operate efficiently and become a productive cog in the machine of schooling, one needs to believe that the final goals for which we all strive are equity, social justice, inclusion and the like. The discrepancy between the regulative ideal, which exalts the supreme goals of democracy, and its actualisation in a life-world context is a central concern of ideology critique (Žižek 2008a). In the Lacan-Žižek axis, ideology is conceived as a defence against some traumatic real, a 'fantasy-screen' (Žižek 2008b, 7) focused on restoring order to a situation that otherwise seems chaotic or impossible. A fantasy provides a rationale for failure, that is, a meaningful way of dealing with a traumatic situation. Failure – without the screen of ideology – is chaotic, impossible, or even unbearable for an individual teacher, researcher or policy maker.

The fantasy-screen of ideology provides a rationale for these uncontrollable experiences. When confronted with the worldwide problem of failure in school mathematics and the societal demand for 'mathematics for all', research establishes an explanatory scheme within which an approach to the problem is proposed (Baldino and Cabral 2006; Pais 2012, 2013). Although the particular constellation of the fantasy narrative changes from one research thematic to another, the figure of 'failure' functions as that which simultaneously thwarts the realisation of the ideal goal of a universally meaningful mathematics and compels the articulation of an entire discourse concealing the necessity of failure itself (hence providing researchers a frame within which to develop their work). As such, experiences of failure function as symptoms (Žižek 2008a) of mathematics education. The exploration of these symptoms reveals the impotence of current educational systems to deal with exclusion.

To paraphrase Žižek (2008a, 161), when one is dealing with a universal principle, such as the high goals of equity and 'mathematics for all', one invariably assumes that it is possible to apply this principle to every particular element, so that the principle's empirical non-realisation – the fact that people continue to fail in school mathematics – is seen as a matter of contingent circumstances. A symptom, however, is an element which, while appearing as a contingency, is in fact essential to the universal principle that it breaches. In Žižek's words, it is an element in which:

> – although the non-realisation of the universal principle in it appears to hinge on contingent circumstances – has to remain an exception, that is, the point of suspension of the universal principle: if the universal principle were to apply also to this point, the universal system itself would disintegrate. (Žižek 2008a, 161)

When it is claimed that everyone should be provided with a meaningful mathematics education, this official goal conceals the obscenity of a school

system that year after year 'rightfully' excludes thousands of students from the possibility of pursuing higher studies or a place in the society of abundance. This happens under the official discourse of an inclusionary and democratic schooling. It is in this discrepancy between the official discourse and its (failed) actualisation that ideology is made operational. Within the official discourse, what is necessary is the abstract motto of 'mathematics for all', all the exceptions to this rule (the ones who fail) being seen as contingencies. However, in our analysis, what is necessary is precisely the existence of those who fail, the abstract proclamation being a purely contingent result of the frenetic activity of individuals (researchers, practitioners, politicians) who believe in it. Failure as a symptom indicates that the condition of impossibility of realising the goal is simultaneously its condition of possibility. The antagonistic character of social reality – the crude reality

that in order for some to succeed others have to fail – is the necessary Real which needs to be concealed so that the illusion of productive research and equitable schooling can be kept. The figure of 'failure' – which encompasses the marginalised, the excluded, the truant – has to remain an exception; and the universality preached by the official discourse masks the symptomatic character of exclusion, the fact that the true universality at work in schooling is the need to produce failure.

One of the ways the system has of constructing exclusion as a contingent occurrence is to treat it as an individual choice. Apparently, students are confronted with the choice of participating in the official discourse by means of active engagement in the classroom activities. However, as we shall see, there are places where this is a false choice since, even when students choose to participate, their choice leads to exclusion. As Žižek (2006, 348) puts it, '[t]his appearance of choice, however, should not deceive us: it is the mode of appearance of its very opposite: of the absence of any real choice with regard to the fundamental structure of society'. In our case, this appearance of choice – to participate in classroom activities – disavows the absence of any real choice regarding the possibilities these students have of pursuing a valuable education. The system initiates students into blaming failure on their own choices for the sake of keeping the appearance of a free and equal school system.

The place and the layout of a free and equal school system

Traditionally, the German school system was organised federally and streamed students after primary school into three different school-types according to their supposedly 'innate' ability.[1] This streaming was done in different ways with teachers and/or parents being able to shade decisions based on a student's average marks. However, the three streams were organised hierarchically with only the highest stream providing access to an academic education.

According to the official rhetoric, the stratification of streams allowed the effective design of classes for students according to their different 'innate' abilities. While in practice 'ability' meant achievement in literacy, mathematics and science, it still lacks any scientific operationalisation or justification. Rather, it is grounded in a historically grown common sense of different 'forms of ability' (Rösner 2007). According to this common sense there is 'academic ability' as opposed to 'practical ability'. While the high stream supposedly optimised learning conditions for 'academically able' learners, the low stream provided an environment supposedly optimitised

for ‘practically able’ learners. The middle stream appeared as a hybrid that supposedly nourished both forms of ability. The administrative moral imperative that assured that such stratification would not collide with the democratic principle of equity, but could operate within it, was that ‘without

consideration of rank and assets of parents, the educational pathway has to stay open which accords with his or her ability’ (Kultusministerkonferenz, cited in Pietsch and Stubbe 2007, 428, emphasis added). Together with the common sense of different abilities, this moral imperative provided the rationale for maintaining the fantasy of a free and equal school system despite the explicitly selective and stratifying organisation of schooling in Germany. Thus, while the structure of the German school system might make it easier to expose the systematic occurrence of failure, the system still provides an ideological fantasy-screen that deceives the observer about the nature and role of failure.

The data

This paper is based on the re-analysis of data from the project ‘Emergence of Disparity in Mathematics Classrooms’ with which one of us was involved (Knipping et al. 2008). As this project had its main focus on the social interactions that discursively produce mathematical knowledge and consciousness, data collection was made mainly through videography. The mathematics classes in which we undertook our research were in one seventh grade (first year of secondary school) in Berlin, Germany, just after the summer holidays of 2009. Before the summer holidays, all the students in the research class had finished their primary schools with a recommendation that they attend the lowest of the three available ability-streams in secondary school. During the first three weeks of the school year, we captured all mathematics lessons (14) in one classroom using a camera recording a long shot. While two teachers were present most of the time, one of the two teachers was responsible for the organisation of the mathematics classes.[2] In addition, we carried out in-depth interviews with the teacher leading the class and took field notes. There were 14 students in the class. The students in this study can be considered underprivileged given the social segregation that results from where they live, their background as members of a cultural minority, having German as a second language and by the institutional selectivity of the German streaming school system. A considerable number of the students in the class had already had to repeat one or two school years in primary school. Eight of the 14 students had Sinti and Romani backgrounds; the remaining six students were second- or highergeneration descendants of Turkish and Arabic immigrants. None of the students spoke German as a first language.

The analysis we present here is different from that in the original project; rather than analyse students’ or teachers’ interactions, here we seek to pinpoint how ideology is operationalised through these interactions. Thus, when we undertake an interpretation of a teacher’s or student’s actions and speech, it is a theoretical reading of a social reality. We do not claim to ‘truthfully’ represent the psychic situation of any real existing human being,

but rather posit their activity within – and as a symptom of – broader structural arrangements which we then theorise. Therefore, we deliberately chose key incidents that would allow us to explicate the theoretical significance that we attributed to the whole data corpus. In our cases, and within

the Lacan-Žižek theorisation we are deploying here, these key incidents allows us to address the system's points of extimacy (Lacan 2008), that is, the features that are simultaneously part of the school system (all the episodes we analyse occurred in regular mathematics classes) and strange to this same system (since they report experiences of undesirable failure and are thus extrinsic to the broader educational discourse of equity and access for all). In other words, the failure we analyse through these key incidents is something strange to the system of equity in which schooling is based, yet it is at the heart of this same system.

The episodes and their (psychoanalytical) interpretation

Elsewhere we have described the pedagogy enacted in the classrooms we observed as one that 'in order not to overcharge – infantilizes students and – in order to enable classroom management – objectifies students … Learning in such mathematics classrooms' we suggested 'adds to the underprivileged conditions that these learners face' (Straehler-Pohl and Gellert 2011, 198). Classroom interactions were set up in such a way that, as observers, we could identify very few opportunities to acquire mathematical knowledge. A deeper analysis, using Bernstein's theory of pedagogic codes, revealed that the pedagogy in this classroom was almost completely free from the 'instructional discourse' (Bernstein 2000, 32) that creates specialised skills. What remained was an excessive 'regulative discourse' (32) that was concerned with the regulation of the students' position in the social order so that, in the end, 'students are locked into an identity of failed primary school mathematical knowers' (Straehler-Pohl 2012). Against this background, participating in the classroom activities seemed inevitably to lead students towards failure in learning mathematics. In the following analysis, we present the cases of two students who 'decided' not to participate in the activities in the way that the majority of their peers did. We then contrast these students' (non-)participation with the ideological positioning of the teacher. The case of these students, although seen by the teachers as contingent occurrences that might be overcome through sanctions such as expelling the students from the classroom, will then be analysed as symptoms of schooling.

The case of Melinda

Melinda's participation in the classroom was characterised by a total refusal of the teachers' authority (most of the time two teachers were present in

class). At the beginning of the first mathematics class in this new school, each of the students was asked to complete the sentence, 'I am feeling ___, because ____'. Though still not acquainted with the second teacher, Melinda articulated the following: 'I am feeling bad because today we have class with this teacher [pointing at the second teacher]'. During the course of the mathematical activity (working '887 − 339' at the blackboard), Melinda spent quite some time talking to Mariella, her classmate, in a foreign language. This was mostly ignored by the teacher, although twice she calmly admonished her. When Mariella was asked to finish the task at the blackboard, Melinda shouted at Mariella: 'what are you doing bitch?' Although clearly stated and quite loud, this interruption remained unsanctioned. However, a few minutes later, Melinda 'collected' (teacher's word) her third, calmly spoken, admonishment and was excluded from the classroom for the rest of the day. The following day, the mathematics class took a similar course, resulting in Melinda again being excluded. On the third

day, Melinda did not reappear: she had been expelled from school. As she was still of compulsory school-age she would have been directed towards another low-streamed school in the neighbourhood.

The case of Hatice

On the third day of the researcher's observations, Hatice, who was already known to the teachers as a truant, appeared in class for the first time. In class, Hatice was quietly doing the calculations demanded of her by the work sheet (such as '9700 – 300'). Hatice was among three students who succeeded in finishing their work sheets. The next time Hatice appeared in class, she completed three work sheets in 20 minutes including 186 'simple multiplication exercises'. The fourth sheet, one given to Hatice 'as a reinforcement' (teacher's words), stated at the top of the page that 'it is now getting harder and harder', and concluded at the bottom: 'when you have solved all the problems correctly – then you are the king of computations' (see Figure 1). When Hatice came back to her seat and started filling in the solutions on the work sheet, the second teacher asked her to 'read the instructions first'. However, there were no instructions for the first 54 calculations. Ignoring Hatice's confusion, the teacher commanded, 'read!' Hatice did not show up to any of the rest of the observed lessons.

Interpretation

Both Melinda's and Hatice's behaviour resulted in their physical exclusion from the class, either by expulsion or by truancy. Yet their actions were fundamentally different, if not opposite. Melinda seems to have staged her opposition against the institution of the school and its norms: she insisted on making use of her mother tongue, which is forbidden in class; on

speaking whenever she wanted to; and finally she swore at a fellow student and did not respect the teacher's authority. Melinda thus operated in ways that teachers may believe justifies the way they organise their classes: effective learning is not possible because of students' bad behaviour and thus mathematics instruction has to be suspended in favour of social regulation. The teacher succeeded in constructing Melinda's resistance as a matter of her own choice. While the teacher stayed calm and delivered quiet admonishments as some sort of countdown that Melinda could have accepted ('three strikes and you're out'), she decided to ignore them. We can interpret the teacher's 'counting down' as a false activity (Žižek 2007, 26). Installing this countdown, the teacher does not act in order to change something (in particular the fact that students are not learning mathematics), but instead acts to prevent change: once Melinda was expelled from the classroom community, business could go on as usual. Melinda thus appeared to be a contingent individual obstacle; once all 'Melindas' have been expelled, mathematics learning will occur.

Figure 1. Worksheet (translated from German).

On the other hand, Hatice seems to stage her opposition in line with the official discourse of the institution of school. She remained quiet, worked effectively and solved her tasks correctly. However, this form of behaviour deviated so strongly from what the teachers expected of a student in her position that it ended up being not rewarded but rather reprimanded. The reason for the reprimand may lie in the resourcefulness shown by Hatice: through her behaviour she laid bare the teachers' ridiculously low expectations regarding the learning of mathematics, and, as a consequence, how irrelevant school was for her future. When the teacher prohibited Hatice

from doing the activity quickly, it appears that her intention was not so much to disturb Hatice's participation, to inhibit her from achieving what was indeed expected from her, but to mask the fact that students like Hatice are not supposed to behave/succeed like this.

It would seem that students such as Hatice might have greater potential to do well in schools since, instead of aligning themselves with the implicit demand to fail, they follow the letter of the 'law' and, in Hatice's case, she actually performed well in the classroom. However, her industry could also reveal the contradictoriness and hopelessness of her situation and threaten the effectiveness of the organisation of classes. This threat did not go unnoticed by the teachers, who reacted by reprimanding Hatice for her behaviour. In the next section we problematise the role of the teachers. From the perspective of an evolutionistic thesis, the teachers' pedagogy could be seen as the primary contingent obstacle to a meaningful mathematics education, yet we will provide a deeper insight into the teacher's perspective in order to highlight how we see her activity, not as contingent, but as articulated by ideology.

The teacher's perspective

In the break between the two math-lessons, Mrs Streller [the lead teacher] sits down at her desk and immediately starts talking … To me, it sounds almost like a confession, the way she gets the frustration off her chest … When she started working at this school thirty years ago at the age of twenty-six, she said, she came home crying regularly. This does not happen anymore. However, the reason is not that the situation has changed; the situation, she says, is getting steadily worse. But it has changed, because she herself has 'dulled'. She doesn't care anymore about a lot of things, as she learnt to ignore when students swear at her or others … She sees herself rather as a social worker, as a substitute mother, actually anything rather than a transmitter of knowledge. Transmitting knowledge appears to be unwinnable anyway, she says … Many of the students would not reach beyond the attainment of third-graders at the end of class nine. In this class, she estimates, maybe four or five students would manage to leave school with a low-stream graduation. (Hauke Straehler-Pohl, extract from field notes, 16 September 2009)

When I started, right after finishing my teaching degree, I really came home crying. I said to myself, you will never ever go there again; my teacher education was a waste. (Extract 1, interview with Mrs Streller, November 2009)

Then they [the experienced teachers] said to me: 'No, you can't do a dictation [in German class] like that. You have to write the text on the board, word by word and let them copy.' I said: 'Well, I can't write a dictation on the board. What kind of dictation is that?', 'Well, just do it … and you will see', they said. And still [after trying], children were only getting [marks] fours, fives and sixes, even though the whole text was written on the board… (Extract 2, interview with Mrs Streller, November 2009)[3]

Well I do not necessarily always want to have only stress with my students, I want to experience some nice things. (Extract 3, interview with Mrs Streller, November 2009)

If I force them and even more and even more … then they won't get it anyway. They become nervous and fed up with it, yes? Why should I do math after all then? It leads nowhere … And then I would, if I was alone, I would say, well lets go into the playground for 10 minutes yes, and count flowers or collect 10 leaves or well yes, just to make a little change … The disadvantage is, when there are two teachers in the room, you never know well would my colleague

agree with that or does he think it's stupid?, because you …
also with colleagues, you have not chosen all of your colleagues.
(Extract 4, interview with Mrs Streller, November 2009)

Interpretation

The image of the teacher (from the two incidents with the students) as a cold and punitive figure does not match either the teacher's reflective discourse (interview) or the researcher's impressions of the teacher's spontaneous discourse (field notes above). The teacher explicitly reported her emotional reactions when she was hit by the discrepancy between the idealised school ('everything you studied') and what was actually going on in her new workplace. This led her to revaluate her role as a teacher. She reported this experience as a serious threat (extract 1 and field notes) that required her to develop a phantasmic defence (becoming 'dull', field notes). As previously mentioned, a fantasy provides a narrative for failure, one that covers over the traumatic experience of having to fail someone. When confronted with the failed union between the ideal and actual school, the teacher operates – or rather partakes in – an ideology that allows her to continue her work. We suggest that the community constituted by her more experienced colleagues played a crucial role in this process: they provided the ideological material that allowed her to fill the gap between the official discourse and the concrete conditions of schooling. This ideological material was not the official discourse of equity, but the underlying belief, shared by all members of the community, that the official discourse is indeed a lie. In order for the new teacher to be part of the community, the public rule

(assuring equity through meaningful mathematics instruction) was not a sufficient means for identification. It had to be supplemented by a clandestine 'unwritten' rule that constituted the true 'spirit of the community':

> What 'holds together' a community most deeply is not so much identification with the Law that regulates the community's 'normal' everyday circuit, but rather identification with a specific form of transgression of the Law, of the Law's suspension (in psychoanalytical terms, with a specific form of enjoyment). (Žižek 2005, 55, emphasis in the original)

The way the new teacher found to cope with the gap between the Symbolic reality and the Real of schooling was by identifying herself with practices that she knew would not lead to the high goals of the Law.

Identification with the community is always based upon some shared guilt or, more precisely, upon what Žižek (2005, 55) calls the fetischistic disavowal of this guilt: I know very well these students will never make it; nevertheless I keep acting as if they can. The teacher's fantasy of pursuing the superior aims of education enables her to repress the traumatic insight that all she is doing is actually working against these aims. Moreover, the teacher deals with the guilt resulting from having given up her desire (for a truly emancipatory education) through a philanthropic idealisation of herself as a 'substitute mother' (field notes) or an advocate for these poor children (extract 4). This humanistic position allows her to ideally construct herself in opposition to her colleagues (extract 4). This move, although perceived by the teacher as a 'step away from' from the ideology that she criticises in her colleagues, rather signals her total immersion in it:

> an ideological identification exerts a true hold on us precisely when we maintain an awareness that we are not fully identical to it, that there is a rich human person beneath it: 'not all is ideology, beneath the ideological mask, I am also a human person' is the very form of ideology, its 'practical

efficiency'. (Žižek 2008a, 27, emphasis in the original)

Ideology is effective not because subjects consciously adhere to its values, but because they keep performing the external ideological ritual, in this case, promoting low-level activities among the students, using excessive regulatory strategies, etc., even as they publicly maintain a distance from its values.

Within the Lacan-Žižek axis, the attachment to something we know is 'wrong' can only be explained in terms of jouissance, or, in its anglicised form, enjoyment: although the ideology has been exposed, we do not change our behaviour because we enjoy it. As the teacher is aware, she has to find some pleasures in her job (extract 3). However, as it appears impossible to fulfil the desires framed by the official discourse of mathematics education, she has to find jouissance somewhere else. As mentioned in the

quote from Žižek above, what a subject enjoys when deprived of a full identification with the Law is the transgression of this Law itself. This is the domain of the superego which 'emerges where the Law – the public Law, the Law articulated in the public discourse – fails; at this point of failure, the public Law is compelled to search for support in an illegal enjoyment' (Žižek 2005, 54, emphasis in the original). In this sense, superego is the 'obscene underside' that necessarily redoubles and accompanies the 'public' Law. It represents the true spirit of the community yet simultaneously violates the explicit rules of community life. While the symbolic Law provides meaning (based on the high goals of equity and inclusion), the superego provides enjoyment that serves as the unacknowledged support of meaning (56). An ideological edifice 'bribes' subjects into accepting renunciation by way of offering enjoyment. Concluding from the case studies, we posit the enjoyment of the teacher not in the official Law, but in the entire set of regulative measures that she puts forward to control the classroom. This happens even though, or rather, precisely because, these measures keep the students in a situation of imminent failure. The teacher sees these regulative measures as being for the students' own good, thus failing to acknowledge her own enjoyment in this ordeal.

The forced choice

Apparently the 'choice' that students face regarding school mathematics is between participating in the classroom activities and refusing to participate. However, the argument we present in this paper is that in certain mathematics classes, the choice is not an 'individual' choice between participation and non-participation, but between two modes of 'non-participation'. The first mode offers the choice of a straightforward non-participation by abandonment or exclusion from the school system. In the second mode, the alternative is to participate in classroom activities that contribute to an understanding of one's own ignorance of mathematics. This implies participating in one's own stigmatisation and exclusion from access to socially valued vocational and educational opportunities. Although the majority of students explicitly participated in the classroom activities, the narrow-mindedly mechanical and arbitrary activities guaranteed that the outcomes of this learning will not provide students with the skills and knowledge to open up further educational or vocational options. Thus, students' decisions to participate in classroom activities result in their non-participation in further education, in much the same way as the direct decision not to participate. As such, the choice is a false choice, since either way students are paving

the way to their own exclusion from a consensually valued form of life. At best, students can postpone the materialisation of an already-determined exclusion.

At stake here is what Žižek (2008a, 38) calls the choix forcé, which directly concerns the relation of a subject to her or his community: 'every belonging to a society involves a paradoxical point at which the subject is ordered to embrace freely, as the result of his choice, what is anyway imposed on him' (36). In our case, what the school community indicated, both to the novice teacher and to the students, was that they had freedom to choose, but only on condition that they chose the right thing, that is, on the condition that they chose to operate between the official discourse and the obscene unwritten rules of the superego. The role of the unwritten rules was to restrain the field of choice by prohibiting the possibilities allowed for, guaranteed even, by the public Law (38). Taken together, the cases of Hatice and Melinda can be read as a message from the teachers to the other students that subtly undermined their freedom of choice and established the choix forcé. In the case of Melinda the message was: you are free to choose to participate in the activities or not. However, be sure that you will lose your membership of the community if you decide not to. In the case of Hatice the message was: even when you choose to participate, do it in the way that we expect you to, that is, play the role of the 'deficient' student who cannot go beyond ineffectual and stultifying tasks. In both cases, the students were forced to choose what had already been given to them.

Can things be different? As we discussed previously apropos the teacher, fantasy designates the unwritten framework that tells us how we are to understand the letter of the Law (Žižek 2008a, 38). In this sense, Hatice's behaviour (not accepting the unwritten rule of the community: behaving in an orderly manner and correctly solving the exercises set by the teachers) posed a threat to the teacher's fantasy. As Žižek points out, 'the truly subversive thing is not to disregard the explicit letter of the Law on behalf of the underlying fantasies, but to stick to this letter against the fantasy which sustains it' (38, emphasis in the original). However, as discussed above, a shared lie is an incomparably more effective bond for a group than the truth. What keeps the class together is not a sense of emancipation, of fulfilling the Law, but a shared sense of failure. This is how Hatice, by following the Law, excluded herself from the community. She literally treated the forced choice as a true choice suspending the phantasmic frame of unwritten rules which told her how to choose freely, and chose the impossible: to actually learn mathematics.

Perhaps the truly revolutionary act would be for students to behave like Hatice, to fully identify themselves with the public Law and demand a serious and rigorous mathematics education from their teachers. Žižek (2008a, 29) calls this gesture one of overidentification, which consists of taking the system more seriously than it takes itself. He explains that 'an ideological edifice can be undermined by a too-literal identification, which is why its successful functioning requires a minimal distance from its explicit rules' (29). A student like Melinda does not present any threat to

the teacher. On the contrary, her behaviour justifies teachers' arguments that there are some students for whom pedagogic efforts are not worthwhile: even though we know we deny our students a meaningful mathematical

experience, we do it for their own good since they lack any sense of discipline. A student such as Hatice, on the other hand, by erasing the minimal difference between the Law and its underside, presents a real threat to the teacher's libidinal economy. The only way the teacher has to deal with Hatice's act is through blind challenge: 'read it'!

Final remarks

As the title of our paper indicates, our aim was twofold. Firstly, through the exploration of classroom episodes we aimed to explore failure as a necessary feature of current schooling. A critique of ideology provided us with the means to undermine the fantasy-screen built around the issue of choice. This allowed us, secondly, to frame our analysis within a broader critique of a certain research approach to mathematics education that we characterise as evolutionistic. To do this we built on the assumption that the failure evident in the key incidents was not an empirical obstacle to the actualisation of the ideal, but a symptom of the functioning of the school system based in this ideal. The objective was to demonstrate how putting failure in its place – as a necessity of the system instead of a contingent obstacle – can improve our understanding of it (and its unequal distribution). We have thereby shown what we might gain if we dared to escape the regulative imperative of an optimistic evolutionism and make 'failure' itself the object of educational research.

Our analysis reveals the risks involved in considering educational failure as an unpleasant obstacle on the didactic road towards salvation. Describing things in terms of what ought-to-be instead of what is requires us to refrain from seeing failure in its totality, and to compartmentalise it into contingent variables that allow us to formulate narratives of modification for each variable. However, as we have shown, such an action ignores the life-world contexts of those involved and, thus, of those who necessarily would be involved in the change that research wants to bring about. By maintaining the demand to disregard totalities in favour of contingent variables, much educational research becomes what we have described above as a false activity: instead of unfolding a potential for a real change, it creates the conditions for things to remain the same. This happens by creating the imperative to research the conditions for success which creates a blind spot around the conditions for failure. A research agenda that could unfold this potential for change would need to take serious account of the stratification of failure and success inherent in the current meritocratic organisation of schools. Research would not only have to ask questions such as 'Why do students fail to succeed?' or 'Why do teachers fail to make students

succeed?' or 'Why does teacher education fail to make teachers make students succeed?', etc., but juxtapose these questions with their antagonist: 'Why does school succeed by making students fail?'

The first essential step towards such a research agenda is to acknowledge the apparently pervasive function of school as a credit system (Baldino and Cabral 1998; Baldino 1998; Pais 2013; Vinner 1997). In order for such a credit system to work effectively within the official discourse of a democratic society, it needs to portray itself as a place where equal students meet freely and an 'invisible hand' guarantees that the competition of individuals' egos work for the common good. An analytic approach such as ours makes visible that merit in this credit system is possible only in relation to the demerit of others, i.e. the notion of personal merit is only possible

as long as others fail. However, our analysis of the German school system, which abstains from efforts to disguise its functions of selection and accreditation, has shown that only accepting schools as credit systems does not suffice to undermine effectively such ideology. Our analysis has pointed to the more subtle ways in which ideology works by making individuals (mis)recognise their choices as their own, as free choices – especially when these choices imply failure. However, as we have seen in the cases of Melinda and Hatice, refusing to produce according to demand results in being barred from the school(ed) community. Thus, it becomes imperative that individuals read failure as the result of fair competition among equals and repress the traumatic truth that they fail so that others can succeed. Our theorisation has illustrated how schools need to obscure this 'truth' in order to retain their central role in maintaining apparently democratic and inclusive societies. Our analysis has shown the need for more research that focuses on the subtle ways in which this 'truth' is performed in the actual contexts of students and teachers. We claim that this kind of research is necessary to expose how failure is entangled within a meritocratic school system.

The reader may be left wondering to what extent our analysis has been a product of the contingent (and by now even historical) organisation of the German school system as an overtly streaming system. We would like to close our article with a question: Are less explicitly segregated school systems not just more effective in veiling the 'subversive supplement' of necessary failure and thus maintaining the fantasy of an exclusively democratic and inclusive endeavour?

Notes

1. The educational system is organised federally, each Bundesländ (province) having its own educational laws. In some provinces, the decision on to which school-stream a student is sent is based on the average marks in the final report cards; in some provinces, the classroom teacher gives an obligatory suggestion (parents can just deviate downwards); in some Bundesländer, the classroom teacher gives an optional suggestion and the final decision is made by the parents.
2. Schools receive a budget of additional teacher resources, assigned according to variables such as the number of second-language learners, students with learning disabilities, etc. As almost all of the relevant variables were high at this school, the school could, in the majority of cases, afford to allocate two teachers to each class for the main subjects.
3. In Germany, marks are given on a scale from one to six with one being the best mark, five being a 'fail'. Giving a six is reserved for marking a 'complete' failure, such as a refusal to take part.

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